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The impact of preferential trade agreements on governmental repression revisited

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Abstract Previous research suggests that most treaties are ineffective in ensuring countries' compliance with human rights standards. It has been argued, however, that preferential trade agreements (PTAs) including 'hard' human rights standards can withhold economic benefits and, thus, can have a real potential to substantially reduce human rights violations. The following article questions this as existent work on the effects of PTAs on human rights standards neglects a selection process underlying the implementation of these treaties. Countries being aware of the 'shadow of the future' already take into account what may happen at the succeeding enforcement stage when establishing a particular PTA. This implies that states agree on 'hard' human rights standards in PTAs only if they have a general propensity to abide by human rights in the first place. For testing the empirical implications of their argument, the authors collected new data on PTAs in 1976/77-2009, and employ genetic matching techniques. The results support the theoretical argument that PTAs are unlikely to affect human rights compliance when controlling for the outlined selection problem.

Keywords International institutions · Preferential trade agreements · Human rights · Compliance · Selection

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1 Introduction

According to the latest Amnesty International (2011) report, people suffered from abuse, were tortured, or were constrained in their freedom of expression in almost 100 countries during the year 2010. Why does this occur? Why do some countries torture their people while other countries comply with human rights standards and, consequently, refrain from abusing, torturing, or repressing their people? A thorough and systematic answer to these questions is certainly of interest to policy makers and non-governmental organizations alike, and, in fact, scholars addressed this before (e.g., Cottier 2002; Goodman and Jinks 2003; 2004; Gould 2004; Hafner-Burton and Tsutsui 2005; Hathaway 2002; Hill 2010; Hollyer and Rosendorff 2011; Keith 1999; Landman 2005; Mitchell and McCormick 1988; Moravcsik 1995; Neumayer 2005; Risse et al. 1999; Schwarz 2004; Sen 2004; Simmons 2009; Vreeland 2008).

From a normative perspective, unfortunately, the majority of this literature claims that, in general, human rights treaties do not seem to be an effective tool to improve countries' respect for human rights. This might be primarily due to missing enforcement mechanisms that most, if not all, international human rights agreements lack in their treaty design. In contrast, however, previous research suggests that preferential trade agreements (PTAs) may be able to induce domestic policy changes and substantially reduce human rights violations. If these bilateral or regional treaties, which aim at liberalizing trade between their member countries, additionally comprise 'hard human rights standards,' trade benefits can be made conditional on treaty members' compliance with international human rights.[1] The logic for this claim is straightforward: by linking highly attractive gains from trade to the compliance with human rights, PTAs offer a way to withhold economic benefits or impose economic sanctions in the case of abuse, torture, or repression (Hafner-Burton 2005a).[2] Hence in contrast to general human rights treaties, PTAs if they comprise a hard human rights standard, should lead to an increase in their member countries' respect for human rights.

While this seems to constitute good news for the compliance with human rights and the role of PTAs in particular herein, from a more general perspective, we also obtain support for the assertion that international institutions or regimes do (or at least have the potential to) influence adverse governments via coercion, issue linkage, or reputational effects toward 'good behavior.' Arguably, the pre-requisite is that this logic holds and is empirically valid to the extent that international institutions,

[1] The term 'hard human rights standard' (hard law) implies that non-compliance can be sanctioned by withholding trade benefits. 'Soft human rights standards' (soft law), on the other hand, refer to the simple mentioning of human rights practices in a treaty, while an enforcement mechanism is not given.

[2] Although our study empirically focuses on the compliance with human rights standards, the theoretical argument can be applied to other policy issue areas such as environmental degradation, labor standards, or the impact of any international institution in general. For example, Bechtel and Tosun (2009) examine the impact of PTAs in the field of environmental protection. Due to the availability of data, however, we exclusively focus on PTAs and human rights compliance in this study.

regimes, and PTAs as the focus of this research, are indeed effective instruments for enforcing states' compliance with human rights standards.

The following article questions this presumption. In fact, we argue that previous work on PTAs and members' human rights compliance neglects a selection process underlying the formation of these treaties. Countries are likely to be aware of the 'shadow of the future' and, hence, they should already take into account what may happen at the succeeding enforcement stage when establishing a particular PTA. This implies that states should agree on hard human rights standards in PTAs only if they have a general propensity to abide by human rights in the first place anyway. If this selection process holds, it is crucial for studies examining the effectiveness of PTAs in promoting human rights that both theory and empirics acknowledge the factors that motivate countries to include hard human rights standards and those that do not require the inclusion of any human rights clauses. Otherwise, it may well be that the findings we obtain are spurious or biased.

Due to this rationale, the literature on the rational design of international institutions (e.g., Koremenos et al. 2001; Koremenos 2005) serves as the foundation of our research as it emphasizes that states take into account what may happen at the succeeding enforcement stage already when they establish a particular regime (see also von Stein 2005; Simmons and Hopkins 2005; Landman 2005; Bernhagen 2008; Hill 2010). Consequently, scholars need to acknowledge countries' preferences for the establishment of international institutions, regimes, and PTAs when studying their effects in order to avoid biased inferences, since countries' preferences for the establishment of an international institution and the institution's effectiveness, are just 'two faces of the same coin' (e.g., Fearon 1998; Koremenos et al. 2001; Koremenos 2005).

For empirically testing our argument, we collected new data on PTAs in 1976/77-2009 and employ genetic matching techniques for addressing the outlined self-selection issue. Our results confirm that PTAs are unlikely to affect human rights compliance when controlling for selection. Hence, countries seem indeed to anticipate what might happen at the enforcement stage when establishing PTAs, since they only include hard human rights standards in the first place if they have a general tendency to comply with them anyway. This research provides important insights into the effectiveness of PTAs as enforcement mechanisms of human rights standards, and, potentially, into international institutions dealing with other issue areas in general. More precisely, our findings suggest that international agreements do not have much coercing power per se, but are only means to enforce law – such as human rights standards as in our case – if governments are willing to do so.

The research note proceeds as follows. The next section summarizes the existent literature on the broader framework to which our work seeks to contribute to: do international institutions affect world politics or rather reflect them? We then discuss our theoretical argument, highlighting that the previous research on PTAs and human rights standards has not yet accounted for persistent selection effects, although we believe that there is a genuine need for actually doing so. As a result, we then outline what kinds of implications this has for the impact of hard law commitments in PTAs on the compliance with human rights. Afterwards, we describe the data used for our empirical

analysis, while the succeeding sections present our research design, the estimation strategy, as well as our results and robustness checks. We finish the article with a comprehensive discussion of our findings and implications for future studies and policy makers.

2 Do International Institutions have the Potential to Affect World Politics?

The broader and more fundamental research question underlying our work is whether international institutions and agreements *affect* world politics or instead *reflect* them only (see Boehmer et al. 2004). On one hand, if countries join international institutions such as PTAs simply after taking into account their expectations on compliance already at the formation stage, this would lend support to a realist perspective, which claims that these institutions do not have an independent or a substantial effect on countries' courses of action. Put differently, international institutions then merely reflect existing interests (Downs et al. 1996; see also Hollyer and Rosendorff 2011). On the other hand, if international institutions were to influence countries' policy decisions, perhaps independent of their design or underlying country-specific preferences, we could subscribe to an institutionalist perspective, which posits that international institutions are in fact more than 'signaling devices' (Boehmer et al. 2004).

That being said, a great amount of literature would confirm that international institutions do indeed affect countries' domestic policy decisions, and that they have a real and independent impact. For example, several studies show that international organizations exert influence by significantly reducing the risk of military conflict between countries (Boehmer et al. 2004; Dorussen and Ward 2008; Oneal and Russett 1999). Membership in international institutions may also positively influence international trade (Ingram et al. 2005), environmental quality (Ward 2006; Spilker 2012), or democratization processes (Pevehouse 2002).

Furthermore and directly pertaining to our focus on PTAs and human rights compliance, Hafner-Burton (2005a) examines the conditions under which PTAs may be effective in preventing domestic human rights abuses. She argues that PTAs with hard human rights standards can rely on coercion (instead of reputational effects) to influence their treaty members toward establishing and respecting human rights standards. This stands in contrast to both PTAs with soft standards and regular human rights treaties, which generally lack enforcement mechanisms. We believe that this distinction seems important, since it shows that only those international agreements, which link material benefits to the compliance with human rights standards, can provoke their members to demonstrate a more substantial respect toward human rights. By analyzing data on PTAs and the level of compliance with human rights between 1976 and 2002, Hafner-Burton (2005a) finds empirical support for her argument.

Contrary to this more optimistic view on the effectiveness of international institutions, von Stein (2005) actually obtains evidence that international treaties

have little constraining power. In her analysis of states' commitments to Article VIII of the International Monetary Fund (IMF) treaty, von Stein (2005) demonstrates that the factors, which make it more likely that states enter into internationally binding agreements in the first place, affect countries' propensity for compliance afterwards.[3] This suggests that treaties merely have screening purposes than actual constraining power.[4] Instead, it is more likely that states demonstrate compliance with institutional laws and regulations by making agreements rather shallow to ensure encompassing membership. Under these circumstances, the policy changes demanded by international institutions simply denote the 'lowest common denominator' and, thus, rather small hurdles to clear.

The 'lowest common denominator' argument essentially points to the idea that countries incorporate their expectations about compliance when negotiating international agreements. Hence, it becomes difficult to determine what the effect of a specific treaty may be or how it may look like when the typical state that ratifies the treaty 'possesses more of the state-level characteristics known to be associated with good human rights practices than the typical nonratifier' (Hill 2010: 1161; see also Landman 2005).[5]

The idea of incorporating expectations about compliance is at the heart of the rational design literature (e.g., Koremenos et al. 2001; Koremenos 2005). By mainly focusing on uncertainty and flexibility, this literature argues that states will opt for international forms of cooperation that can be described as soft law when facing conditions of uncertainty. In turn, this occurs at the expense of agreements with clear enforcement mechanisms that pertain to the hard law category (Abbott and Snidal 2000; Koremenos 2005). As a result, these arguments contend that countries are aware of the 'shadow of the future' when designing international agreements. However, while these agreements may not necessarily address the problem at hand effectively, they actually fit countries' pragmatic anticipation on the prospective policy change that will be possible given a (potential) member's current policy level. In the next section, we rely on this assertion when elaborating why PTAs are unlikely to be effective in causing policy changes in issue areas such as human rights, labor standards, or environmental protection.

[3] However, Simmons and Hopkins (2005) criticize von Stein's (2005) methodological approach. They show that even if one accounts for the screening effects of Article VIII of the IMF treaty, there is still significant constraining power to the treaty. We will come back to this methodological disagreement in our research design section below.

[4] Note that this also supports Downs et al.'s (1996) notion that the high levels of compliance we usually observe in international governance do not necessarily mean that a deep level of cooperation has been reached.

[5] While previous research has already demonstrated that it is crucial to control for the factors that lead countries to join an institution when analyzing the institution's effectiveness (Hill 2010; Landman 2005; von Stein 2005) our approach differs from previous research in at least one important way. The aim of these previous studies was to show that countries' decision to join an existing institution and compliance with this institution's regulations are related. Our research takes this argument one step further and shows that countries design institutions, in our case PTAs, in a way that takes future compliance already into account.

3 The Impact of Preferential Trade Agreements on Government Repression – A Selection Perspective

The previous literature suggests that PTAs, in contrast to human rights agreements in general, have a built-in enforcement mechanism if they are comprised of hard law standards, i.e., if economic benefits from PTAs are in some way conditional upon treaty members' actions toward human rights. In more detail, the possibility to rely on trade sanctions in case of non-compliance allows hard law PTAs to coerce their members into changing their domestic policies as specified in the respective agreement (Hafner-Burton 2005a). Although this argumentation sounds plausible, we claim that it ignores a crucial step: it does not account for the formation stage of these treaties, i.e., the stage in which countries negotiate and decide the terms to be included and the level of commitment to be reached in a PTA. Moreover, this line of reasoning does not take into account countries' willingness in the first place to comply with treaty regulations afterwards. If states are selective when deciding whether to include hard human rights standards in a PTA or not, any analysis on the effectiveness of PTAs in promoting human rights is likely to be biased unless we control for this selection effect. In fact, following the rational design literature (e.g., Koremenos et al. 2001; Koremenos 2005), we would expect countries to be 'forward looking' as they should take into account what may happen at the succeeding enforcement stage already when they establish a particular institution, regime, or treaty.

Correspondingly, we expect states to include hard human rights standards in PTAs only if they themselves expect to comply with the human rights standards as postulated in an agreement subsequently. The reason being that states if they include tough human rights standards while knowing that they are unlikely to abide by these standards are likely to face at least two risks. First, violating these standards involves reputational costs for a state, since it thereby signals to the present as well as to other potential treaty partners that it does not necessarily adhere to its international obligations (see Hathaway 2002). Second, a state might risk that the partner in a PTA does opt for enforcement. If the counterpart of a defecting treaty member in a PTA observes the violation of the human rights standards and is willing to use trade sanctions to enforce them, the country will lose out from the gains of trade. Being aware of this enforcement risk, a country that does not have a good human rights record should simply not be willing to include any clause that may lead to the enforcement of human rights standards in a PTA. Since a PTA without human rights standards may also induce the same amount of trade liberalization and, thus, the same potential gains from trade but does not involve any reputational costs or the risk of enforcement in the event of non-compliance with a human rights clause, there is no a-priori reason to actually add hard human rights standards at all. Following this logic, we expect that only countries with a good human rights record should be willing to add a hard human rights clause

to a PTA they are entering.[6] Similarly, this also implies that we should not observe any impact of hard human rights standards in PTAs on states' degree of human rights compliance, once we control for the selection effect of including hard human rights clauses in a PTA.[7]

We illustrate our rationale with two cases. In 2003, the European Union (EU) established a PTA with Chile and Egypt, respectively. Whereas the treaty with Chile included hard human rights standards, the one with Egypt did not contain any reference to human rights at all. Following our argument, the selection process can explain these outcomes during PTA formation. In the case of the EU-Chile agreement, it was (and still is) unlikely that any (major) human rights violations would emerge, since either actor is committed to democratic values. Hence, both the EU and Chile should face little difficulties when signing a PTA containing hard human rights standards, since they knew in advance that an enforcement situation was unlikely to ever emerge. In contrast, when the EU and Egypt entered into their PTA, the calculations for the two actors may have been somewhat different: as Egypt would have been unlikely to change its human rights practices even if it had agreed on a PTA with a hard human rights clause, the EU would have been faced with the option to enforce the human rights standards. Enforcement, however, would have been associated with vast reputational costs for Egypt and would have led to potential losses in the gains from trade for both actors. Having said that, Egypt (and the EU as well) could simply circumvent this dilemma by establishing a PTA containing no human rights commitments, which, in turn, does neither risk losing any gains from trade nor begets any reputational costs.

Arguably, this means that actors take into account the probability of enforcement when establishing PTAs. We, therefore, claim that countries are aware of the 'shadow of the future' and that they should conclude PTAs with hard human rights standards only in those cases, in which they are likely to subsequently comply with the PTA's human rights regulations. Hence, and perhaps paradoxically, the inclusion of hard human rights standards should thus primarily occur in those cases in which they are hardly necessary.

[6] Hafner-Burton (2005a) seems to be aware of this potential selection effect. She argues that this should not affect her results since countries with both good and bad human rights records tend to ratify PTAs with hard law human rights standards. However, in another paper she shows that factors, such as a democratic political system, significantly affect the likelihood of countries to enter into PTAs with hard human rights standards (Hafner-Burton 2005b). Since democracies tend to have a higher respect for human rights, this clearly supports our conjecture that those factors that lead countries to include hard human rights standards are also the factors that are responsible for their compliance with these standards.

[7] An objection to our argument could be that some states are eager to include hard human rights standards in order to coerce their partner countries to respect human rights. However, this seems implausible, since including tough human rights standards in a PTA, while knowing that the counterpart is unlikely to abide by these standards, poses a severe challenge to a state. It can either choose not to enforce the standard, thereby suffering from reputational costs or it can decide to enforce the standard, which is likely to result in losing out on the gains of trade. Similar to the argument above then, actors should simply avoid this enforcement dilemma by including hard human rights standards only in those cases in which their counterparts are likely to abide by these standards anyway.

In contrast, countries should rely on soft or no human rights standards when they expect that they (or their treaty partner) will violate human rights.

4 Research Design

4.1 Data

To examine the effect of hard human rights standards in PTAs on countries' compliance with human rights, we use the country-year as the unit of analysis and merged existing data on human rights compliance and various covariates described in detail below with newly compiled information on PTAs between 1976 and 2009.[8] Due to the methodological approach, observations with missing values had to be deleted case-wise. Ultimately, our time-series cross-section data are comprised of 4,117 country-years for 174 countries with 249 PTAs in total.

4.2 Dependent Variable

We measure the extent to which a country complies with human rights standards via its level of political repression. Following Hafner-Burton (2005a: 615), political repression is operationalized by the level of political terror, i.e., data on 'murder, torture, or other cruel, inhuman, or degrading treatment or punishment; prolonged detention without charges; disappearance or clandestine detention; and other flagrant violations of the right to life, liberty, and the security of the person.' This variable draws on two data sources. The first one is Poe and Tate (1994) who compiled data on 153 governments' reported levels of political terror from 1976 to 1993; the second one pertains to Gibney et al. (2005; 2011) who collected repression data from 1980 to 2009 across a somewhat different sample of 141 states and territories. The information in both sources was collected via content analysis of annual human rights reports issued by Amnesty International and the U.S. State Department. Our final item follows a 5-point ordinal scale that combines the information of both Gibney et al. (2011) and Poe and Tate (1994), and ultimately follows Gibney et al.'s (2011) operationalization of the Political Terror Scale. In other words, those years that are not covered by the Political Terror Scale are imputed with data from Poe and Tate (1994). Table 1 gives an overview about this item.

4.3 Explanatory Variables

We consider states' decisions to include hard human rights standards in PTAs as our core factor of interest. More specifically, in order to construct a dichotomous variable for hard law PTAs, we coded 249 different PTAs by analyzing the content of all formal PTA contracts,[9] where the 'explicit adoption of human rights language and principles, and

[8] 1977 constitutes the 'effective' starting year for the time period under study, since all our explanatory variables are lagged by one year.
[9] This includes treaties, protocols, and other forms of amendments.

Table 1 Political repression worldwide, 1977–2009 (original sample before matching)

Value	Description	Frequency	Percent
1	Countries under a secure rule of law, people are not imprisoned for their view, and torture is rare or exceptional. Political murders are extremely rare.	721	17.51
2	There is a limited amount of imprisonment for nonviolent political activity. However, few persons are affected, torture and beatings are exceptional. Political murder is rare.	1,211	29.41
3	There is extensive political imprisonment, or a recent history of such imprisonment. Execution or other political murders and brutality may be common. Unlimited detention, with or without a trial, for political views is accepted.	1,294	31.43
4	Civil and political rights violations have expanded to large numbers of the population. Murders, disappearances, and torture are a common part of life. In spite of its generality, on this level terror affects those who interest themselves in politics or ideas.	632	15.35
5	Terror has expanded to the whole population. The leaders of these societies place no limits on the means or thoroughness with which they pursue personal or ideological goals.	259	6.29
Total		4,117	100.00

whether the benefits accorded by the contract formally depend on those principles' (Hafner-Burton 2005a: 615) signaled whether a PTA in question was comprised of hard human rights law or not. Our first explanatory variable, *PTA hard law,* thus measures state membership with PTAs supplying hard standards: an observation takes on a value of 1 in a specific year if a state belongs to any PTA with hard law human rights standards. Using this treatment variable allows us to test whether PTAs that incorporate human rights standards with an enforcement mechanism (i.e., hard standards) differ from those PTAs that incorporate soft human rights standards in general and from those PTAs that do not incorporate any human rights standards at all.

Next to the core variable, we also control for other influences on the level of political repression. We largely follow Hafner-Burton's (2005a) approach and operationalizations here. First, in order to differentiate the impact of human rights standards in PTAs from a countries' general commitment to international human rights agreements, we include information on ratification, succession, and accession to the *International Covenant on Civil and Political Rights* and the *Convention against Torture*, respectively. The final item, i.e., *human rights ratification*, is an ordinal variable ranging from 0 to 2. Those values are derived from the total number of the two treaties that a state has ratified into national law by any given year.[10]

Second, population pressure can exacerbate resource scarcity and, thus, increase the likelihood that states use repression to control civil violence (Henderson 1993; Poe and Tate 1994). We therefore consider a second control variable that measures a state's population density per square kilometer. We retrieved the data from the World Bank Development Indicators and lag it by one year for our estimations.

[10] This approach does not take into account that countries can ratify a human rights treaty while exempting itself from certain obligations by using reservations (Landman 2005; Neumayer 2007). However, in order for our results to be closely comparable to the study of Hafner-Burton (2005a) we decided to use a simple ratification measure and not a weighted ratification measure that takes reservations into account.

A combination of democratic values, democratic institutions, transparency, and the promotion of civil liberties are crucial determinants of a country's tendency to comply with human rights accords (Henderson 1991; Poe et al. 1999; Cingranelli and Richards 1999; see also Mitchell and McCormick 1988; Keith 1999; Gould 2004; Hathaway 2002; Schwarz 2004; Neumayer 2005). Similarly, albeit different, regime transitions and political instability influence the regime type of a country and, in turn, could affect the propensity toward repression by the government (Henderson 1991; Poe et al. 1999; Cingranelli and Richards 1999; see also Mitchell and McCormick 1988; Keith 1999; Gould 2004; Hathaway 2002; Schwarz 2004; Neumayer 2005). In addition, transitions into democracies could increase the chances of forming hard law PTAs, since new regimes (or leaders) might want to signal their commitment and 'tie their hands' (see Hathaway 2002). For capturing these rationales, we incorporate the following variables. First, we operationalize a country's level of democracy via the *polity2* item (*democracy*) of the *Polity IV* data (Marshall and Jaggers 2002).[11] Second, *political stability* additionally counts the number of years since a state has undergone a structural regime transition, defined as a movement on *democracy* of three points or more (Marshall and Jaggers 2002). Note that this item also corrects for temporal dependencies as it essentially measures the movement of a country's *democracy* score over time (see Beck et al. 1998).[12] Both variables are lagged by one year.

Forth, *GDP per capita* measures a country's gross domestic product per capita in constant U.S. dollars. Mitchell and McCormick (1988) argue for the 'simple poverty thesis,' i.e., that a lack of economic resources creates a fertile ground for political conflict and governmental political repression. Furthermore, 'in an advanced economy where people are likely to have fewer grievances, political stability is often achieved more easily, reducing the likelihood of human rights violations' (Hafner-Burton 2005a: 617; see also Pritchard 1989; Henderson 1991). The data for this variable stem from the World Bank Development Indicators, and we log the variable and lag it by one year.

Finally, we draw on the sum of a state's total exports and imports of goods and services measured as a share of GDP in order to operationalize *trade*. This variable controls for the impact of financial and market transactions on countries' tendency to comply with human rights (Cingranelli and Richards 1999; Richards et al. 2001).[13] Similar to *GDP per capita* above, the World Bank Development Indicators provide us

[11] Missing values pertaining to microstates were replaced with data from Gleditsch (2008). More specifically, the original *Polity IV* data omit values of microstates. Gleditsch (2008), however, collected these data.

[12] Although *political stability* should address temporal dependencies due to its operationalization as a yearly count item, some of these dependencies might persist. We therefore also estimate a model with a torture-years variable (i.e., time in years elapsed since a country scored the value 3 or higher on *political repression*) and different sets of cubic splines (Beck et al. 1998).

[13] In order to address this mechanism, Hafner-Burton (2005a: 617) also considers a variable on countries' inflows and outflows of foreign direct investment. We decided to drop this 'FDI investment' variable due to three reasons. First, it theoretically addresses the same concerns as *trade*, which we do include. Second, Hafner-Burton's (2005a) variable is statistically insignificant throughout any of her model estimations, rendering it unlikely that this item will crucially affect our results. Finally, the World Bank Development Indicators as the source for the investment variable suffer from missing values.

with the necessary information, while the final variable is logged and lagged by one year. Table 2 summarizes the descriptive statistics.

4.4 Methodological Approach: Genetic 1:1 Matching with Replacement

As argued above, countries that agree to include hard human rights standards in their PTAs should differ in important and predictable ways from those countries that do not want to include these standards in their PTAs. Hence, this treatment departs from Hafner-Burton (2005a). For comparison, we tried to replicate her results here and our estimations are summarized in Table 3. While the descriptive statistics in Table 2 demonstrate that our data are very close to Hafner-Burton's (2005a: 616) operationalizations[14] – although our variables do not fully match her items – Table 3 further emphasizes this, since our models below are virtually identical to Hafner-Burton's (2005a: 619) Table 2. Most importantly, PTA hard law exerts a substantial and significantly negative impact on governmental repression. This finding holds, regardless if we extend Hafner-Burton's (2005) temporal domain or employ our variable specifications as outlined above.

However, and according to our theory, we claim that this might be misleading and actually driven by a selection process, since tough human rights standards should be systematically included in PTAs due to certain kinds of country interests or domestic characteristics (see Hill 2010).[15] Previous research dealt with this problem either through an instrumental variable approach or the use of selection estimators. However, Gilligan and Sergenti (2008) demonstrate that these purely parametric strategies are inaccurate in addressing non-random assignments, since they rely on unverifiable modeling assumptions and are generally not able to deal with the influence of other existent covariates. In turn, this may lead to the underestimation of the actual effect of hard human rights law in PTAs and, thus, the results are potentially biased.

Matching is a more effective solution to these problems as it corrects for the non-random assignment while controlling for the existence of confounding factors. More specifically, matching pre-processes the data to form quasi-experimental contrasts by sampling a subset of comparable cases from the overall pool of observations. The observations contained in this subset resemble each other as closely as possible, i.e., the differences due to confounding factors are reduced to a minimum. The only – and actually crucial – exception is that these 'most-similar' cases differ in whether they received the treatment (*PTA hard law)* or not. After the matching, we can estimate the effect of the treatment by analyzing the matched sample using parametric methods in

[14] Despite several attempts, unfortunately, we were unable to obtain Hafner-Burton's (2005a) original data.

[15] One could argue that there is another selection process that already occurs at the stage when countries decide to enter into a PTA and, hence, that we should model first which countries form a PTA (Hafner-Burton 2005b). Although we do see that there might be a selection process that drives which countries form a PTA, we refrain from modeling this process here, since it is unlikely that it affects countries' decisions on whether to include hard human rights standards or not therein. Put differently, states should enter into PTAs because of reasons pertaining to their trading relationship – and not because of reasons pertaining to their compliance with human rights. Therefore, ignoring this first selection process in our analysis should not bias our results.

Table 2 Descriptive statistics, 1977–2009 (original sample before matching)

	Obs	Mean	SD	Min	Max
Repression	4,117	2.635	1.126	1	5
PTA hard law	4,117	0.334	0.472	0	1
Human rights ratification	4,117	1.136	0.826	0	2
Population density	4,117	109.088	309.067	1.322	6,913.43
Political stability	4,117	23.986	30.348	0	199
Democracy	4,117	1.897	7.306	−10	10
GDP per capita	4,117	7.465	1.583	4.390	10.749
Trade	4,117	4.157	0.552	1.844	6.082

order to control for any remaining imbalances (see Ho et al. 2007; Morgan and Winship 2007). Here, we use orderd logit models, and also cluster the standard errors by country to correct for the bias due to non-constant variances and for taking into account intra-group correlations.

5 Empirical Findings

In a first step, we employ genetic one-to-one matching with replacement (Diamond and Sekhon 2013; see also Sekhon 2007). These specifications proved to maximize the balance between the treatment and control group, respectively, and ultimately we obtain a matched sample of 2,754 observations for a reference to hard human rights

Table 3 PTAs and human rights compliance – Hafner-Burton (2005a: 619) replication

	Model 1 (1977–2002)	Model 2 (1977–2009)	Model 3 (own specifications before matching)
PTA hard law	−0.377 (0.162)**	−0.442 (0.146)***	−0.318 (0.193)*
PTA soft law	0.157 (0.148)	0.257 (0.145)*	
Human rights ratification	0.172 (0.067)***	0.231 (0.063)***	0.574 (0.116)***
Population density	0.001 (0.001)	0.001 (0.001)	0.001 (0.001)***
Political stability	−0.006 (0.002)**	−0.004 (0.002)*	−0.014 (0.005)***
Democracy	−0.036 (0.009)***	−0.036 (0.008)***	−0.080 (0.016)***
GDP per capita	−0.156 (0.046)***	−0.186 (0.045)***	−0.404 (0.089)***
Trade	−0.419 (0.092)***	−0.389 (0.091)***	−1.034 (0.016)***
FDI investment	0.008 (0.006)	0.009 (0.004)**	
Obs	2,861	3,788	4,117
Log pseudolikelihood	−2,342.07	−3,021.72	−5,243.55
Wald χ^2	1,358.92***	1,552.26***	142.44***

Table entries are coefficients. Robust standard errors clustered on country in parentheses. Temporal corrections as specified in Hafner-Burton (2005a: 615) are included in Models 1–2, but omitted from table

* significant at 0.1 level, ** at 0.05 level, *** at 0.01 level (two-tailed)

standards in PTAs due to the fact that our original data identified 1,377 PTA country-years that included hard law human rights standards. We used the following variables to match on, i.e., to achieve a maximum of balance between observations from the treatment group with those from the control group with respect to all variables outlined above: *trade*, *democracy*, and *human rights ratification*. Again, considerations on the balance between the subsamples influenced this decision, as this set of variables proved to be optimal with regard to the overall achieved balance.

We refrained from matching on all explanatory variables due to two reasons. First, this would not avoid matched datasets with still significant imbalances. In fact, the three variables *trade*, *democracy*, and *human rights ratification* we matched on induced the highest balance between treated and control observations than any other combination of variables. Second and in the words of Ho et al. (2007: 216f):

> the theoretical literature emphasizes that including variables only weakly related to treatment assignments usually reduces bias more than it will increase variance, and so most believe that all available control variables should always be included. However, the theoretical literature has focused primarily on the case where the pool of potential control units is considerably larger than the set of treated units. Some researchers seem to have incorrectly generalized this advice to all datasets. If, as is often the case, the pool of potential control units is not much larger than the pool of treated units, then always including all available control variables is bad advice. Instead, the familiar econometric rules apply about the trade-off between the bias of excluding relevant variables and the inefficiency of including irrelevant ones: researchers should not include every pre-treatment covariate available.

Our approach, thus, corresponds to the general genetic algorithm used by Sekhon (2007: 12ff), which maximizes the smallest *p-value* for *t-tests* in each iteration of the matching procedure.

Before and after we conducted the matching, we assessed the degree of distributional balance of our explanatory items between the treatment and the control group. Figure 1 depicts our findings via two common balance statistics. With regard to the left panel, a standardized bias within [−0.25; 0.25] indicates that a variable is well balanced (Ho et al. 2007: 220). In terms of the second panel, we report the *p-values* of *t-tests* (0.10 as threshold level) for identifying if real differences between the treatment and the control group do persist. Evidently, the distributions of most explanatory variables significantly differed between the treated and the control group before we matched observations. After the matching, however, our sample displays a substantially improved balance to the extent that we can hardly distinguish between observations in either group and the only real difference between observations is actually the treatment of *PTA hard law*. More specifically, all standardized biases range within [0.25; -0.25] and the *p-values* are mostly well above the value of 0.1. However, the latter balance statistic also shows that differences between the treatment and the control group seem to persist for *human rights ratification* in our matched sample. We address this point in the robustness checks of the online appendix.

As indicated above, Ho et al. (2007: 211f) suggest using the same parametric estimator for the matched data one would have employed in the first place, i.e., before the matching. Due to the use of the matched sample, however, the importance of the

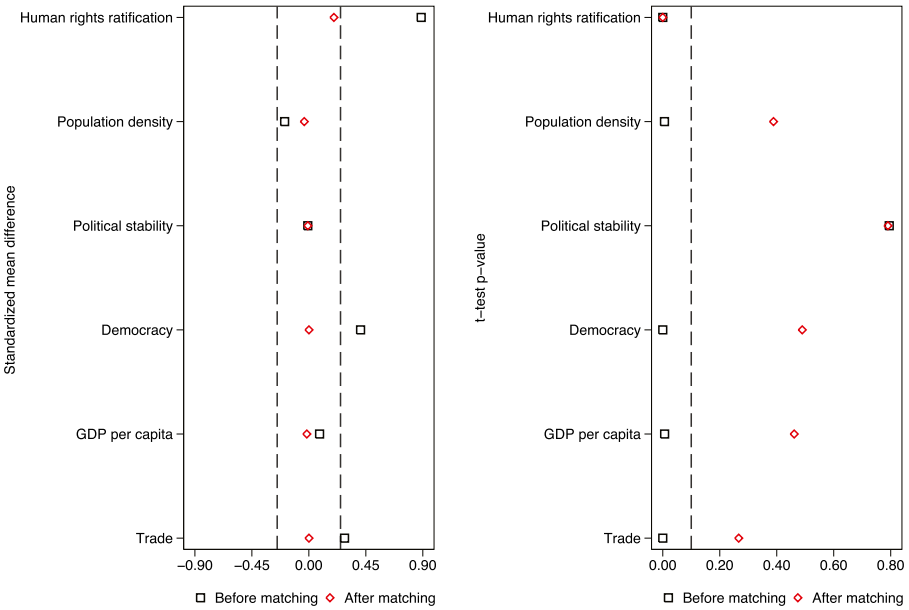

Fig. 1 Matching: Balance statistics – *PTA hard law.* Dashed lines mark specific threshold levels (or intervals) for respective balance statistic. Balance statistics before matching might be covered by balance statistics after matching

functional form that is characteristic for any parametric estimator is significantly lowered, specification assumptions matter less, and the reliability of the results is more strongly given. Table 4 summarizes our results from the final models that rely on the matched data.[16]

In total, we estimate four models to demonstrate that our findings are robust and take the censoring of the impact of PTAs' reference to hard human rights standards on political repression into account. Recall that we postulated that the impact of hard law human rights standards in PTAs should disappear as soon as we account for the outlined selection process. And indeed, unlike in Table 3 above or Hafner-Burton (2005a), *PTA hard law* is highly insignificant throughout Models 4–7. As demonstrated in Table 4 and more thoroughly in the online appendix, adding or excluding controls from the models does not alter this result.[17] The confidence in the empirical support for our theory is further increased by Fig. 2, where we employed King et al.'s (2000) software package *clarify* in order to calculate first differences for scoring any of the five values of *political repression* while increasing *PTA hard law* from 0 to 1 and holding all other variables at their respective means.

[16] With regard to the included control items in Models 4–7, note that a common interpretation is generally not possible, since the matching technique seeks to address and control for the imbalances of those variables between the treatment and control group in the first place. Hence, we only include those items in our models in order to control for any remaining imbalances.

[17] The online appendix and the replication material for the empirical analysis in this article can be found at the journal's website: *http://www.springer.com/social+sciences/journal/11558*.

Table 4 The impact of hard law PTAs on human rights compliance, 1977–2009: Matched sample

	Model 4	Model 5	Model 6	Model 7
PTA hard law	−0.058 (0.250)	−0.123 (0.214)	−0.041 (0.212)	0.191 (0.195)
Human rights ratification		0.734 (0.156)***		0.672 (0.160)***
Population density		0.001 (0.001)	0.001 (0.001)	0.001 (0.001)
Political stability		−0.013 (0.006)**	−0.013 (0.006)**	−0.010 (0.006)*
Democracy		−0.124 (0.016)***	−0.088 (0.016)***	−0.086 (0.016)***
GDP per capita		−0.412 (0.111)***	−0.461 (0.115)***	−0.289 (0.101)***
Trade		−0.761 (0.236)***	−0.661 (0.238)***	−0.675 (0.220)***
Years since torture				−0.425 (0.040)***
Obs	2,754	2,754	2,754	2,754
Log pseudolikelihood	−4,094.484	−3,328.300	−3,408.573	−3,058.422
Wald χ^2	0.05	160.41***	102.05***	468.19***

Table entries are coefficients. Robust standard errors clustered on country in parentheses. Cubic splines (Beck et al. 1998) included in Model 7, but omitted from table

* significant at 0.1 level, ** at 0.05 level, *** at 0.01 level (two-tailed)

Figure 2 essentially mirrors our findings from Table 4, since *PTA hard law* does not exert any significant or substantial impact on either value of *political repression*. In fact and independent from model specifications, we observe increases or decreases in the predicted probability that are close to 0 and the 90 % confidence intervals permanently cross that threshold as well. Hence, the impact of *PTA hard law* on states' levels of human rights compliance cannot be distinguished from 0 as soon as we take into account the underlying selection process. This contradicts Hafner-Burton (2005a), who finds that hard law human rights standards improve a country's compliance. However, the finding is strongly in line with our theoretical rationale that controls for selection. States are aware of the 'shadow of the future' and, hence, already take into account what may happen at the succeeding enforcement stage when establishing a particular PTA. This implies that actors agree on hard human rights standards in PTAs only if they have a general propensity to abide by human rights in the first place. If this general propensity does not exist, hard law references to human rights compliance are unlikely to be included in PTAs, which in turn leads to the observed insignificance of *PTA hard law.*

6 Conclusion

This article has sought to expand our understanding of the impact of PTAs on countries' levels of political repression and compliance with human rights standards. While the recent literature suggests that PTAs can substantially decrease human rights abuses when they include hard human rights standards, it treated PTAs, their impact, and their surrounding influences in an undifferentiated or truncated manner. We, therefore, developed a theoretical model that considers PTAs in a selection process: countries agree on including hard law human rights standards in PTAs only if they

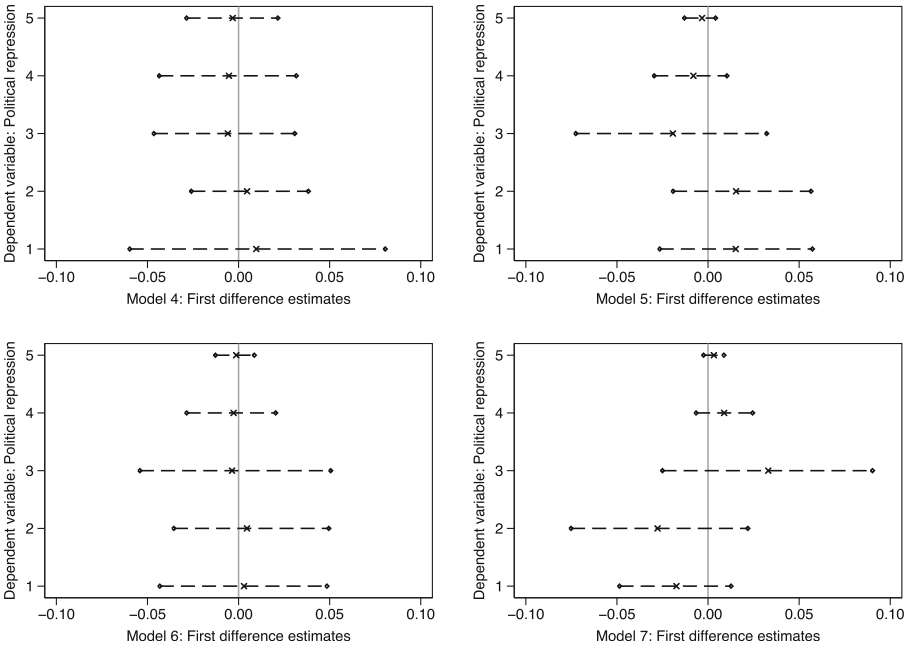

Fig. 2 First difference estimates calculated using simulated parameter values (King et al. 2000). Estimate of first difference represented by *x*. Dashed lines signify 90 % confidence interval. Solid line marks 0-threshold

intend to comply with these standards anyway, i.e., if there is a general tendency to abide by human rights in the first place.

Our findings suggest that PTAs – regardless of what kind of legalization level they employ for demanding human rights compliance – do not have any impact on states' level of political repression. This supports the idea that countries are forward-looking when they establish international institutions as they take the succeeding enforcement stage into account when deciding whether to include human rights standards in their PTAs. This leads to the paradoxical situation that enforceable human rights standards are included in those circumstances in which they are needed the least. In addition, our results emphasize that international agreements do not have much coercing power per se, but are only means to enforce law – such as human rights standards as in our case – if governments are willing to do so in the first place. Put differently, these international agreements seem to merely reflect existing interests rather than affect governments' actions.

Against this background, although this analysis here demonstrates a great deal of empirical support for our theoretical argument, other important questions remain. For example, it is possible that countries that belong to many PTAs with enforceable human rights standards behave differently from those that only belong to one such PTA. Furthermore, although our results show that PTAs do not significantly lower countries' human rights abuses, we did not explicitly examine the argument that the counterpart in a PTA could potentially have an interest in influencing the other country's human rights record. However, we tend to cast doubt on this argumentation, since, as outlined above, including tough human rights standards in a PTA while knowing that the counterpart is unlikely to abide by these standards poses a severe challenge to a country: it can either

choose not to enforce the standard, thereby suffering from reputational costs and damages or it can decide to enforce the standard which is likely to result in losing out on the gains of trade. Similar to the argument made in this article, a country should simply avoid this enforcement dilemma by including hard human right standards only in those cases in which the countries are likely to abide by these standards anyway. However, future research has to unveil whether this is indeed the case.

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